

## Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-2. **[Canceled]**

Claim 3. **[Currently Amended]** The aqueous gel **separation** medium of claim 37, wherein said one or more reagent(s) include a reducing reagent.

Claim 4. **[Currently Amended]** The aqueous gel **separation** medium of claim 3, wherein said reducing reagent is selected from the group consisting of 2-mercaptoethanol, dithiothreitol (DTT), dithioerythreitol (DTE), and tris(2-carboxyethyl)phosphine.

Claim 5 **[Currently Amended]** The aqueous gel **separation** medium of claim 4, wherein said reducing reagent is dithiothreitol (DTT).

Claim 6. **[Currently Amended]** The aqueous gel **separation** medium of claim 37, wherein said one or more reagent(s) include a metal ion chelator.

Claim 7. **[Currently Amended]** The aqueous gel **separation** medium of claim 6, wherein said metal ion chelator is ethylenediaminetetraacetic acid (EDTA).

Claim 8. **[Currently Amended]** The aqueous gel **separation** medium of claim 37, wherein said hydrophilic polymer is selected from the group consisting of: dextran, polyacrylamide, cellulose derivatives and polyethylene oxide.

Claim 9. **[Currently Amended]** The aqueous gel **separation** medium of claim 8, wherein said hydrophilic polymer is dextran.

- Claim 10. **[Currently Amended]** The aqueous gel separation medium of claim 9, wherein said dextran has a molecular weight of 2,000 kilodaltons and possesses a structure composed of approximately 95% alpha-D-(1-6) linkages.
- Claim 11. **[Cancelled]**.
- Claim 12. **[Currently Amended]** The aqueous gel separation medium of claim 37, wherein said alcohol is present at a concentration of from about 0.1% to about 30% (V/V).
- Claim 13. **[Currently Amended]** The aqueous gel separation medium of claim 12, wherein said alcohol is selected from the group consisting of: methanol, ethanol, ethylene glycol and glycerol.
- Claim 14. **[Currently Amended]** The aqueous gel separation medium of claim 13, wherein said alcohol is glycerol.
- Claim 15. **[Currently Amended]** The aqueous gel separation medium of claim 14, wherein said glycerol is present at a concentration of from about 0.1% to about 30% (V/V).
- Claim 16. **[Currently Amended]** The aqueous gel separation medium of claim 37, wherein said Tris-borate buffer is present at a concentration of from about 0.1M to about 1.0M.
- Claim 17. **[Currently Amended]** The aqueous gel separation medium of claim 37, wherein said aqueous gel separation medium has a pH of  $8.1 \pm 0.1$ .
- Claim 18. **[Currently Amended]** The aqueous gel separation medium of claim 37, wherein said introduced analytes include analytes selected from the group consisting of: proteins, polypeptides, peptides and nucleic acid molecules.
- Claims 19-20. **[Cancelled]**

- Claim 21.     **[Currently Amended]** The capillary electrophoresis system of claim 38, wherein said one or more reagent(s) that function to **help** keep analytes in a reduced form include a reducing reagent.
- Claim 22.     **[Original]** The capillary electrophoresis system of claim 21, wherein said reducing reagent is selected from the group consisting of:  
2-mercaptoethanol, dithiothreitol (DTT), dithioerythreitol (DTE), and tris(2-carboxyethyl)phosphine.
- Claim 23.     **[Original]** The capillary electrophoresis system of claim 22, wherein said reducing reagent is dithiothreitol (DTT).
- Claim 24.     **[Previously Presented]** The capillary electrophoresis system of claim 38, wherein said one or more reagent(s) include a metal ion chelator.
- Claim 25.     **[Previously Presented]** The capillary electrophoresis system of claim 24, wherein said metal ion chelator is ethylenediaminetetraacetic acid (EDTA).
- Claim 26.     **[Previously Presented]** The capillary electrophoresis system of claim 38, wherein said hydrophilic polymer is selected from the group consisting of: dextran, polyacrylamide, cellulose derivatives and polyethylene oxide.
- Claim 27.     **[Previously Presented]** The capillary electrophoresis system of claim 26, wherein said hydrophilic polymer is dextran.
- Claim 28.     **[Previously Presented]** The capillary electrophoresis system of claim 27, wherein said dextran has a molecular weight of 2,000 kilodaltons and possesses a structure composed of approximately 95% alpha-D-(1-6) linkages.
- Claim 29.     **[Cancelled]**.

- Claim 30. **[Previously Presented]** The capillary electrophoresis system of claim 38, wherein said alcohol is present at a concentration of from about 0.1% to about 30% (V/V).
- Claim 31. **[Original]** The capillary electrophoresis system of claim 30, wherein said alcohol is selected from the group consisting of: methanol, ethanol, ethylene glycol and glycerol.
- Claim 32. **[Original]** The capillary electrophoresis system of claim 31, wherein said alcohol is glycerol.
- Claim 33. **[Original]** The capillary electrophoresis system of claim 32, wherein said glycerol is present at a concentration of from about 0.1% to about 30% (V/V).
- Claim 34. **[Previously Presented]** The capillary electrophoresis system of claim 38, wherein said Tris-borate buffer is present at a concentration of from about 0.1M to about 1.0M.
- Claim 35. **[Currently Amended]** The capillary electrophoresis system of claim 38, wherein said aqueous gel separation medium has a pH of  $8.1 \pm 0.1$ .
- Claim 36. **[Currently Amended]** The capillary electrophoresis system of claim 38, wherein said introduced analytes include analytes selected from the group consisting of: proteins, polypeptides, peptides, polysaccharides, and nucleic acid molecules.
- Claim 37. **[Currently Amended]** An aqueous gel separation medium, ~~said gel~~ having a structural framework ~~and rigidity~~ to facilitate the separation of introduced analytes, wherein said aqueous gel separation medium consists essentially of components:
- (A) an aqueous tris(hydroxymethyl)aminomethane – borate buffer solution having a pH above 8.0 and below 8.3; ~~and containing:~~

- ~~(1)~~**(B)** sodium dodecyl sulfate;
- ~~(2)~~**(C)** an alcohol; ~~and~~
- ~~(3)~~**(D)** one or more reagent(s) that function to help keep introduced analytes in a reduced form; and
- ~~(B)~~**(E)** a hydrophilic polymer dissolved in said ~~buffer solution~~ components (A)-(D), wherein molecules of said hydrophilic polymer are entangled to provide said gel's structural framework and rigidity wherein said dissolved hydrophilic polymer provides said gel separation medium's structural framework.

Claim 38. [Currently Amended] A capillary electrophoresis system comprising a capillary tube containing an aqueous gel separation medium, ~~said gel~~ having a structural framework ~~and rigidity to facilitate the separation of~~ introduced analytes, wherein said aqueous gel separation medium consists essentially of components:

- (A) an aqueous tris(hydroxymethyl)aminomethane – borate buffer solution having a pH above 8.0 and below 8.3[;] ~~and containing:~~
- ~~(1)~~**(B)** sodium dodecyl sulfate;
- ~~(2)~~**(C)** an alcohol; ~~and~~
- ~~(3)~~**(D)** one or more reagent(s) that function to help keep introduced analytes in a reduced form; and
- ~~(B)~~**(E)** a hydrophilic polymer dissolved in said ~~buffer solution~~ components (A)-(D), wherein molecules of said hydrophilic polymer are entangled to provide said gel's structural framework and rigidity wherein said dissolved hydrophilic polymer provides said gel separation medium's structural framework.

Claim 39. [Currently Amended] A capillary electrophoresis system comprising a capillary tube, wherein said capillary tube has an uncoated inner

surface, and contains ~~containing~~ an aqueous gel separation medium,  
~~said gel~~ having a structural framework ~~and rigidity to facilitate the~~  
separation of introduced analytes, wherein said aqueous gel separation  
medium comprises components:

- (A) an aqueous tris(hydroxymethyl)aminomethane – borate buffer  
solution having a pH above 8.0 and below 8.3; ~~and containing~~;
- ~~(1)(B)~~ sodium dodecyl sulfate;
- ~~(2)(C)~~ an alcohol; ~~and~~
- ~~(3)(D)~~ one or more reagent(s) that function to help keep introduced  
analytes in a reduced form; and
- ~~(B)(E)~~ a hydrophilic polymer dissolved in said ~~buffer solution~~  
components (A)-(D), ~~wherein molecules of said hydrophilic~~  
~~polymer are entangled to provide said gel's structural~~  
~~framework and rigidity~~ wherein said dissolved hydrophilic  
polymer provides said gel separation medium's structural  
framework.

and wherein said gel separation medium forms a dynamic coating on ~~the~~  
said uncoated inner surface of said capillary tube.

Claim 40. **[Currently Amended]** The capillary electrophoresis system of claim 39,  
wherein said one or more reagent(s) that function to help keep analytes in  
a reduced form include a reducing reagent.

Claim 41. **[Previously Presented]** The capillary electrophoresis system of claim 40,  
wherein said reducing reagent is selected from the group consisting of:  
2-mercaptoethanol, dithiothreitol (DTT), dithioerythreitol (DTE), and  
tris(2-carboxyethyl)phosphine.

Claim 42. **[Previously Presented]** The capillary electrophoresis system of claim 41,  
wherein said reducing reagent is dithiothreitol (DTT).

- Claim 43.     **[Previously Presented]** The capillary electrophoresis system of claim 39, wherein said one or more reagent(s) include a metal ion chelator.
- Claim 44.     **[Previously Presented]** The capillary electrophoresis system of claim 43, wherein said metal ion chelator is ethylenediaminetetraacetic acid (EDTA).
- Claim 45.     **[Previously Presented]** The capillary electrophoresis system of claim 39, wherein said hydrophilic polymer is selected from the group consisting of: dextran, polyacrylamide, cellulose derivatives and polyethylene oxide.
- Claim 46.     **[Previously Presented]** The capillary electrophoresis system of claim 45, wherein said hydrophilic polymer is dextran.
- Claim 47.     **[Previously Presented]** The capillary electrophoresis system of claim 46, wherein said dextran has a molecular weight of 2,000 kilodaltons and possesses a structure composed of approximately 95% alpha-D-(1-6) linkages.
- Claim 48.     **[Previously Presented]** The capillary electrophoresis system of claim 39, wherein said alcohol is present at a concentration of from about 0.1% to about 30% (V/V).
- Claim 49.     **[Previously Presented]** The capillary electrophoresis system of claim 48, wherein said alcohol is selected from the group consisting of: methanol, ethanol, ethylene glycol and glycerol.
- Claim 50.     **[Previously Presented]** The capillary electrophoresis system of claim 49, wherein said alcohol is glycerol.
- Claim 51.     **[Previously Presented]** The capillary electrophoresis system of claim 50, wherein said glycerol is present at a concentration of from about 0.1% to about 30% (V/V).

Claim 52.     **[Previously Presented]** The capillary electrophoresis system of claim 39, wherein said Tris-borate buffer is present at a concentration of from about 0.1M to about 1.0M.

Claim 53.     **[Currently Amended]** The capillary electrophoresis system of claim 39, wherein said aqueous gel **separation** medium has a pH of  $8.1 \pm 0.1$ .

Claim 54.     **[Currently Amended]** The capillary electrophoresis system of claim 39, wherein said **introduced** analytes include analytes selected from the group consisting of: proteins, polypeptides, peptides, polysaccharides, and nucleic acid molecules.